

28. (Previously Amended) The multimedia interface according to claim 59, further comprising a programmable memory interface (PMI) core incorporated on the IC chip.

29. (Previously Amended) Multimedia interface according to claim 37, wherein:
the at least one additional core includes the audio and/or video CODEC; and
the power-down circuitry provides the power and/or processing savings when the audio and/or video CODEC is not in use.

30. (Previously Amended) Multimedia interface according to claim 37, wherein:
the at least one additional core includes the PLL circuitry; and
the power-down circuitry provides the power and/or processing savings when the PLL circuitry is not in use.

31. (Previously Amended) Multimedia interface according to claim 37, wherein:
the at least one additional core includes the serial interface core; and
the power-down circuitry provides the power and/or processing savings when the serial interface core is not in use.

32. (Previously Amended) Multimedia interface according to claim 31, wherein:
the serial interface core is incorporated within the reconfigurable logic block.

33. (Previously Amended) Multimedia interface according to claim 37, wherein:
the at least one additional core includes the programmable CPU interface core;
and
the power-down circuitry provides the power and/or processing savings when the programmable CPU interface core is not in use.

34. (pending) Multimedia interface according to claim 33, wherein:
the programmable CPU interface core is incorporated within the reconfigurable logic block.

35. (pending) Multimedia interface, comprising:
an integrated circuit (IC) chip;
a block of reconfigurable logic incorporated on the IC chip;
a media processor block incorporated on the IC chip; and
a programmable memory interface (PMI) core incorporated on the IC chip, the PMI core communicates with off-chip memory and configures it virtually into what is optimal for an application that demands non-standard size memory.
36. (pending) Multimedia interface according to claim 52, wherein:
the programmable memory interface core is incorporated within the reconfigurable logic block.
37. (pending) Multimedia interface, comprising:
an integrated circuit (IC) chip;
a block of reconfigurable logic incorporated on the IC chip;
a media processor block incorporated on the IC chip; and
at least one additional core selected from the group consisting of
audio and/or video CODECs for interfacing to external analog signals;
phase locked loop (PLL) circuitry to reduce skew within various blocks within the IC chip;
a programmable, fast serial interface core;
a programmable CPU interface core;
a programmable memory interface (PMI) core; and
further comprising power-down circuitry, in combination with one or more of these additional cores, incorporated on the IC chip to provide power and/or processing savings when a given one of the cores is not in use. (no change)
38. (Previously Amended) Signal processing interface according to claim 46, wherein:
the at least one additional core includes the audio and/or video CODEC; and

the power-down circuitry provides the power and/or processing savings when the audio and/or video CODEC is not in use.

39. (Previously Amended) Signal processing interface according to claim 46, wherein:

the at least one additional core includes the PLL circuitry; and
the power-down circuitry provides the power and/or processing savings when the PLL circuitry is not in use.

40. (Previously Amended) Signal processing interface according to claim 46, wherein:

the at least one additional core includes the serial interface core; and
the power-down circuitry provides the power and/or processing savings when the serial interface core is not in use.

41. (Previously Amended) Signal processing interface according to claim 40, wherein:

the serial interface core is incorporated within the reconfigurable logic block.

42. (Previously Amended) Signal processing interface according to claim 46, wherein:

the at least one additional core includes the programmable CPU interface core;
and

the power-down circuitry provides the power and/or processing savings when the programmable CPU interface core is not in use.

43. (Pending) Signal processing interface according to claim 42, wherein:
the programmable CPU interface core is incorporated within the reconfigurable logic block.

44. (Pending) Signal processing interface, comprising:

an integrated circuit (IC) chip;
a block of reconfigurable logic incorporated on the IC chip;
a RISC core incorporated on the IC chip; and
a programmable memory interface (PMI) core incorporated on the IC chip, the PMI core communicates with off-chip memory and configures it virtually into what is optimal for an application that demands non-standard size memory.

45. (Pending) Signal processing interface according to claim 58, wherein:
the programmable memory interface core is incorporated within the reconfigurable logic block.

46. (Pending) Signal processing interface, comprising:
an integrated circuit (IC) chip;
a block of reconfigurable logic incorporated on the IC chip;
a RISC core incorporated on the IC chip; and
at least one additional core selected from the group consisting of
audio and/or video CODEC for interfacing to external analog signals;
phase locked loop (PLL) circuitry to reduce skew within various blocks within the IC chip;
a programmable, fast serial interface core;
a programmable CPU interface core;
a programmable memory interface (PMI) core; and
further comprising power-down circuitry, in combination with one or more of these additional cores, incorporated on the IC chip to provide power and/or processing savings when a given one of the cores is not in use.

47. (Previously Amended) The multimedia interface according to claim 59, further comprising a configuration port that allows a user access to the block of reconfigurable logic from off-chip.

48. (Canceled) ~~Multimedia interface, comprising:~~

~~_____ an integrated circuit (IC) chip;~~
~~_____ a block of reconfigurable logic incorporated on the IC chip;~~
~~_____ a media processor block incorporated on the IC chip; and~~
~~_____ audio and/or video CODEC and an analog interface incorporated on the IC chip,~~
the audio and/or video CODEC communicating, via the analog interface, with external analog signals.

49. (Canceled) Multimedia interface, comprising:
~~_____ an integrated circuit (IC) chip;~~
~~_____ a block of reconfigurable logic incorporated on the IC chip;~~
~~_____ a media processor block incorporated on the IC chip;~~
~~_____ means, incorporated on the IC chip, for reducing skew within various blocks~~
within the IC chip; and
~~_____ further comprising power-down circuitry incorporated on the IC chip to provide~~
power and/or processing saving when the means for reducing skew is not in use.

50. (Canceled) The multimedia interface according to claim 31, wherein the serial interface standard is one of USB and IEEE 1394.

51. (Canceled) The multimedia interface according to claim 32, wherein the serial interface standard is one of USB and IEEE 1394.

52. (previously amended) Multimedia interface according to claim 37, wherein:
the at least one additional core includes the PMI core; and
the power-down circuitry provides the power and/or processing savings when the PMI core is not in use.

53. (Pending) The multimedia interface according to claim 37, wherein the media processor has a virtual instruction set capable of implementing a variety of multimedia algorithms.

54. (Canceled) Signal processing interface, comprising:
~~_____ an integrated circuit (IC) chip;~~
~~_____ a block of reconfigurable logic incorporated on the IC chip;~~
~~_____ a RISC core incorporated on the IC chip; and~~
~~_____ audio and/or video CODEC and an analog interface incorporated on the IC chip,~~
the audio and/or video CODEC communicating, via the analog interface, with external analog signals.

55. (Canceled) Signal processing interface, comprising:
~~_____ an integrated circuit (IC) chip;~~

~~_____ a block of reconfigurable logic incorporated on the IC chip;~~
~~_____ a RISC core incorporated on the IC chip;~~
~~_____ means, incorporated on the IC chip, for reducing skew within various blocks within the IC chip; and~~
~~_____ further comprising power-down circuitry incorporated on the IC chip to provide power and/or processing saving when the means for reducing skew is not in use.~~

56. (Canceled) ~~The signal processing interface according to claim 40, wherein the serial interface standard is one of USB and IEEE 1394.~~

57. (Canceled) ~~The signal processing interface according to claim 41, wherein the serial communication standard is one of USB and IEEE 1394.~~

58. (previously amended) Signal processing interface according to claim 46, wherein:
the at least one additional core includes the PMI core; and
the power-down circuitry provides the power and/or processing savings when the PMI core is not in use.

59. (Previously Amended) Multimedia interface, comprising:
an integrated circuit (IC) chip;
a block of reconfigurable logic incorporated on the IC chip; and
a block of media processor with a virtual instruction set capable of implementing a variety of multimedia algorithms incorporated on the IC chip separately from the reconfigurable logic block;
wherein the block of reconfigurable logic contains a least common denomination set of instruction for operating the block of media processor.